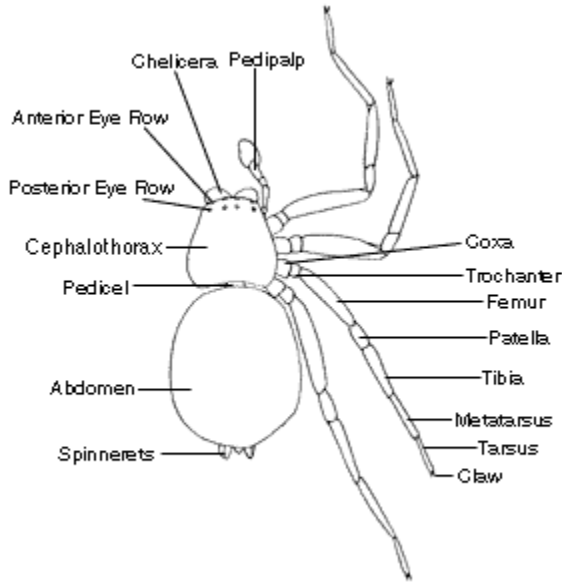


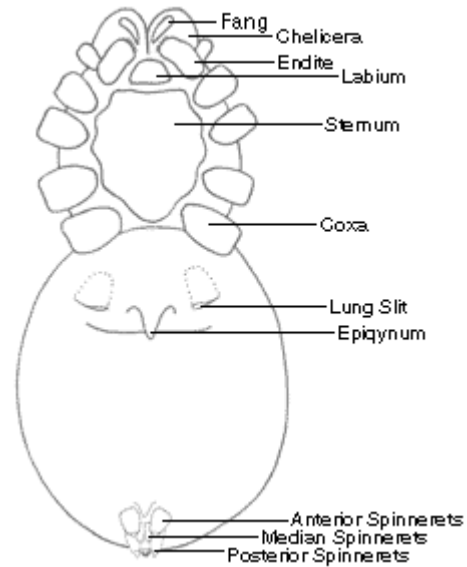
PICTURE KEY TO THE COMMON SPIDER FAMILIES OF GREAT SMOKY MOUNTAINS NATIONAL PARK

Parts of a Spider

(drawings from http://www.amnh.org/learn/biodiversity_counts/)



Dorsal View of Male Spider



Ventral View of Female Spider

PHYLUM ARTHROPODA

CLASS ARACHNIDA

ORDER ARANEAE

FUNNEL-WEB SPIDERS

Agelenidae

- long posterior spinnerets (some)
- dull in color (light brown, light grey)
- web a flat sheet with a funnel retreat
- single row of trichobothria (thin hairs set at right angles to the leg) on tarsi
- Habitat: grass, bushes, under stones and rocks
- Size: 3-20 mm



Trichobothria on tarsi



Funnel-web Spider (dorsal view)



Funnel-web

COLLAR-DOOR TARANTULAS

Antrodiaetidae

- Two pairs of lungs on ventral side of abdomen
- long anterior spinnerets; only four spinnerets total
- build a tubular burrow in the ground
- horizontal chelicerae
- Habitat: well drained, moist soils
- Size: 15-30 mm



Collar-door
burrow



Collar-door Tarantula

ORB-WEAVERS

Araneidae

- legs with many spines
- many are bright in color; some with distinct pattern
- web an orb (stereo-typical circular spider web)
- Habitat: on grass, bushes, trees, houses, etc.
- Size: 3-28 mm



Argiope Orb-weaver



Typical Orb-web



Shamrock Orb-weaver



Araneus Species

RUNNING SPIDERS

Clubionidae

- conical anterior spinnerets; do not build webs
- abdomen elongate and tapers toward the spinnerets
- Habitat: bushes, grass, leaves, under stones and bark
- Size: 2-10 mm



Conical spinnerets



Running Spider (dorsal view)



Face of Running Spider

GNAPHOSIDS (pronounced Na-fose-id)

Gnaphosidae

- elongate body and dorsoventrally flattened
- long cylindrical anterior spinnerets
- do not build webs
- Habitat: under rocks and bark
- Size: 2-10 mm



**Gnaphosid
(dorsal view)**



**spinnerets
(ventral view)**

HAHNIIDS (pronounced Ha-nee-id)

Hahniidae

- spinnerets in a straight row
- dull in color
- do not build webs
- Habitat: leaf litter, roads, and embankments
- Size: 2-4 mm



**Spinnerets in
straight row**



Hahniid (dorsal view)

LAMPSHADE SPIDERS

Hypochilidae

- webs resemble a lamp shade
- dull, yellow-gray color with long legs
- two pairs of lungs on ventral side of abdomen
- Habitat: rock outcrops or caves
- Size: 11-20 mm



Lampshade spider



Lampshade web

SHEET-WEB WEAVERS

Linyphiidae

- small in size with long thin legs
- web a flat sheet often with perpendicular strands of silk above
- spider hangs upside down under web
- Habitat: fields and woods, usually low to ground
- Size: 2-7 mm



Sheet-web of Bowl-and-doily Spider



Ant-mimic Sheet-web weaver (side view)



Bowl-and-doily Spider (side view)

WOLF SPIDERS

Lycosidae

- large posterior median eyes, with posterior lateral eyes well behind
- females attach egg-sac to their spinnerets
- usually do not build webs; some burrow
- Habitat: widespread
- Size: 3-35 mm



Wolf Spider face (note large *posterior* eyes)

LYNX SPIDERS

Oxyopidae

- long, spiny legs
- hexagonal eye pattern
- pointed abdomen
- do not build webs
- Habitat: grass fields, weeds
- Size: 2-15 mm



Lynx Spider face (note hexagonal eye pattern)



Lynx Spider (side view)

CELLAR SPIDERS

Pholcidae

- very thin, long legs (resemble daddy long-legs)
- three eyes on each side of head with small eyes between them
- Habitat: in or around houses
- Size: 2-8 mm



Cellar Spider face (note eye arrangement)



Cellar Spider

FISHING SPIDERS

Pisauridae

- many large in size (often mistaken for Wolf Spiders)
- face low with broad, flat carapace
- egg sac carried in chelicerae
- Habitat: almost always near water
- Size: 10-35 mm



Fishing Spider (blending in with tree bark)

JUMPING SPIDERS

Salticidae

- large anterior median eyes
- heavy bodies and legs; stocky
- usually do not build webs
- Habitat: on vegetation, under objects, occasionally in leaf litter
- Size: 3-13 mm



Jumping Spider face (note large anterior median eyes)



Jumping Spider

LONG-JAWED ORB-WEAVERS

Tetragnathidae

- face appears long due to the large chelicerae
- most have an abdomen 2x longer than wide
- web a non-vertical orb
- Habitat: grass, shrubs, and forest understory; usually near water
- Size: 2-10 mm



Long-jawed Orb-weaver face (note "long jaws")



Long-jawed Orb-weaver (side view)

COMBFOOTED SPIDERS

Theridiidae

- lack hairs or spines on legs
- most have a globular abdomen with spinnerets on the bottom
- irregular web; "cobwebs"
- Habitat: hang inverted in web; found in plants, trees, houses, etc.
- Size: 1-10 mm; most 3-4 mm



Common House Spider



4th tarsus (note serrated comb)

CRAB SPIDERS

Thomisidae

- legs held crablike
- 1st and 2nd pair of legs longer and thicker
- no web; ambush predators
- Habitat: on vegetation, especially flowers; some under stones, bark, etc.
- Size: 2-11 mm



Crab Spider



Flower Spider feeding on bee

VENEMOUS SPIDERS IN OUR AREA



- Black Widow (*Latrodectus* species) – pictured above
- Brown Recluse (*Loxosceles reclusa*) – not pictured; occasionally introduced in the southern Appalachians but uncommon

SPIDER RELATIVES (CLASS ARACHNIDA)



Order Opiliones

A) Harvestman (Laniatores)

B) Daddy-long-leg (Palpatores)

C) Harvestman (Laniatores)

D) Daddy-long-leg (Palpatores)

Order Pseudoscorpiones

E) Pseudoscorpion

F) Pseudoscorpion

Order Acari

G) Tick

H) Mite